

Application Serial No. 10/585,477
Reply to Office Action of May 24, 2010

PATENT
Docket: CU-4938

Amendments to the Claims

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The listing of claims presented below replaces all prior versions, and listings, of claims in the application.

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Listing of claims:

1. (currently amended) A wire material used to form [[for]] a coil expander used for a coil expander, the coil expander is used for [[of]] a combination piston ring comprising a piston ring and the coil expander for pressing and urging the piston ring outward in the radial direction thereof, wherein a cross-sectional shape of the coil expander formed by using the wire material thereof is a rectangular shape with four flat surfaces, [[and]] a cross-sectional shape of the wire material is a rectangular shape with a convex curved surface at the longer side of the rectangular cross section, and when the coil expander is formed by coiling using the wire material for a coil expander, the convex curved surface of the wire material is deformed to be a flat surface for a coil expander, constituting an outer peripheral surface of the coil expander, is formed into a convex curved shape.
2. (currently amended.) The wire material for a coil expander according to claim 1, wherein the height, of the curved surface in the surface of the wire material, for a coil expander, which is formed into of the convex curved surface[[.]] is in a range of 0.03 to 0.1 mm.
3. (currently amended) The wire material for a coil expander according to claim 1, wherein, the wire material includes a concave curved surface at the longer side of the rectangular cross section, and when the coil expander is formed by coiling using the wire material for a coil expander, the concave curved surface of the wire material for a coil expander, is deformed to be a flat surface constituting an inner peripheral surface of the coil expander, is formed into a concave curved shape.

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4. (currently amended) The wire material ~~for a coil expander~~ according to claim 3, wherein, when the height ~~of the curved surface~~ in the surface of the wire material, ~~for a coil expander formed into~~ ~~of the convex curved surface shape~~ is "a" and the height ~~of the curved surface~~ in the surface of the wire material, ~~for a coil expander formed into~~ ~~of the concave curved surface shape~~ is "b", $a \geq b + 0.005$ mm.
5. (currently amended) The wire material ~~for a coil expander~~ according to claim 1, wherein a radius of curvature of the ~~convex~~ curved surface ~~of outer periphery side~~ surface edges, located at both ends in a width direction of the wire material, ~~for a coil expander, of the surface of the wire material for a coil expander formed into the convex curved shape~~ is smaller than the radius of curvature of the ~~convex~~ curved surface ~~of an outer periphery side~~ surface midportion located at the central portion in the width direction of the wire material ~~for a coil expander~~.
6. (currently amended) The wire material ~~for a coil expander~~ according to claim 3, wherein a radius of curvature of the ~~concave~~ curved surface ~~of inner periphery side~~ surface edges, located at both ends in a width direction of the wire material, ~~for a coil expander, of the surface of the wire material for a coil expander formed into the concave curved shape~~ is smaller than the radius of curvature of the ~~concave~~ curved surface ~~of an inner periphery side~~ surface midportion located at the central portion in the width direction of the wire material ~~for a coil expander~~.
7. (currently amended) The wire material ~~for a coil expander~~ according to claim 1, wherein a ~~cross-sectional shape~~ side surface of the wire material ~~is rectangular shape with flat surfaces at the shorter sides of the rectangular cross section~~ ~~for a coil expander~~ is flat.

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8. (currently amended) The wire material for a coil expander according to claim 1,
wherein the coil expander formed by coiling the wire material is used for a
combination oil ring the piston ring is an oil ring.

9. (currently amended) The wire material for a coil expander according to claim 1,
wherein the wire material for a coil expander is formed of a shape memory alloy.

10. (currently amended) A coil expander, wherein the wire material for a coil
expander according to claim 1 is used to form the coil expander.

11. (cancelled)

12. (currently amended) The coil expander according to claim [[11]] 10, wherein the
outer peripheral surface of the coil expander is a plasticity processed surface.